AMENDMENTS TO THE CLAIMS

Claims 1-55 (canceled)

56. (withdrawn) The method of claim 51, wherein the method comprises:

a) analyzing the biological sample by two dimensional electrophoresis to generate a two-dimensional array of APIs; and

b) comparing the abundance of each chosen API in the test sample with the abundance of that chosen API in biological sample from one or more person free from Alzheimer's disease, or with a previously determined reference range for that feature in subjects free from Alzheimer's disease, or with the abundance at least one Expression Reference Feature (ERF) in the test sample.

57. (withdrawn) The method of claim 56, wherein the biological sample is cerebrospinal fluid.

58. (withdrawn) A method for screening, diagnosis, or prognosis of Alzheimer's disease in a subject for determining the stage or severity of Alzheimer's disease in a subject, for identifying a subject at risk of developing Alzheimer's disease or for monitoring the effect of therapy administered to a subject having Alzheimer's disease, the method comprising quantitatively detecting, in a biological sample, Alzheimer's disease-Associated Protein-145 (API-145), wherein an increased level of API-145, relative to a control sample or a reference range, indicates the presence or degree of Alzheimer's disease or a subject at risk of developing Alzheimer's disease.

59. (currently amended) A method for ~~screening, ~~diagnosis~~, or prognosis~~ of Alzheimer's disease in a subject, the method comprising detecting, in a biological sample, API-6, wherein a decreased level of said API-6, relative to a control sample or a reference range, indicates the presence ~~or degree ~~of Alzheimer's disease in said subject ~~or a subject at risk of developing Alzheimer's disease~~.

60. (previously presented) The method of claim 59 wherein the step of detecting comprises:

(a) contacting the sample with a capture reagent that is specific for API-6; and

(b) detecting whether binding has occurred between the capture reagent and API-6 in the sample.

61. (previously presented) The method of claim 60, wherein step (b) comprises detecting the captured API using a directly or indirectly labeled detection reagent.

62. (previously presented) The method of claim 60, wherein the biological sample is cerebrospinal fluid.

63. (currently amended) The method of claim 60, wherein the capture reagent recognizes a post translational component part of API-6 ~~which distinguishes said API-6 from other members of the NCAM gene family~~.

64. (previously presented) The method of claim 60, wherein the capture reagent is an antibody.

65. (previously presented) The method of claim 64, wherein the antibody is a monoclonal antibody.

66. (previously presented) The method of claim 60, wherein the capture reagent is conjugated to a detectable label.

67. (previously presented) The method of claim 60, wherein the capture reagent is immobilized on a solid phase.

68. (withdrawn) A diagnostic kit comprising a capture reagent specific for the protein isoform of claim 51, reagents and instructions for use.

69. (withdrawn) The kit of claim 68, comprising a plurality of capture reagents specific for a plurality of APIs.

70. (withdrawn) The kit of claim 68, wherein the capture reagent is an antibody.

71. (withdrawn) The kit of claim 70, wherein the antibody is monoclonal.

72. (previously presented) The method of claim 59, wherein the API-6 is quantitatively detected.

73. (previously presented) The method of claim 68, wherein the quantitatively detected API-6 is compared to a previously determined reference range or control.

74. (new) The method of claim 59, wherein the level of said API-6 is at least about 1.3 fold decreased relative to a control sample or a reference range.